

Claims

What is claimed is:

1 1. A method for implementing enhanced examination of multiple
2 samples comprising the steps of:

3 providing a metal plate including a plurality of through holes arranged
4 in a predefined pattern, a mounting opening, and an O-ring receiving recess
5 extending within said metal plate to said plurality of through holes;

6 inserting a plurality of sample holders, each within a selected one of
7 said through holes; and

8 installing an O-ring within said O-ring receiving recess to provide a
9 secure mounting of said plurality of sample holders.

1 2. A method for implementing enhanced examination of multiple
2 samples as recited in claim 1 includes the step of mounting said metal plate
3 to a stage holder; said stage holder having an upper portion extending above
4 a base portion, and said upper portion inserted into said mounting opening
5 of said metal plate.

1 3. A method for implementing enhanced examination of multiple
2 samples as recited in claim 1 wherein the step of providing said metal plate
3 includes the step of providing a metal plate formed of aluminum.

1 4. A method for implementing enhanced examination of multiple
2 samples as recited in claim 1 wherein the step of providing said metal plate
3 includes the step of providing a circular metal plate.

1 5. A method for implementing enhanced examination of multiple
2 samples as recited in claim 1 wherein the step of providing said metal plate
3 includes the step of providing a circular metal plate including said plurality of
4 through holes arranged uniformly spaced apart along a common diameter.

1 6. A method for implementing enhanced examination of multiple
2 samples as recited in claim 5 includes the step of providing said O-ring with
3 a diameter less than said common diameter.

1 7. A scanning electron microscope (SEM) holder apparatus for
2 implementing enhanced examination of multiple samples comprising:
3 a metal plate, said metal plate including a plurality of through holes
4 arranged in a predefined pattern, a mounting opening, and an O-ring
5 receiving recess extending within said metal plate to said plurality of through
6 holes;
7 a plurality of sample holders, each received within a selected one of
8 said plurality of through holes; and
9 an O-ring received within said O-ring receiving recess to provide a
10 secure mounting of said plurality of sample holders.

1 8. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 wherein said metal plate is formed of aluminum.

1 9. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 includes a stage holder; said stage holder having an upper
3 portion extending above a base portion, and said upper portion inserted into
4 said mounting opening of said metal plate.

1 10. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 wherein each of said plurality of sample holders includes a
3 downwardly extending portion and an upper sample support portion; said
4 downwardly extending portion is inserted into said through hole and is
5 engaged by said O-ring.

1 11. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 wherein said plurality of through holes is arranged
3 uniformly spaced apart along a common diameter.

1 12. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 11 wherein said O-ring has a selected diameter less than
3 said common diameter, whereby said O-ring protrudes partially into said
4 through holes.

1 13. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 wherein said metal plate is formed of circular member.

1 14. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 7 wherein said metal plate is formed of circular aluminum
3 bar.

1 15. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 14 wherein said metal plate has a diameter of about 3
3 inches.

1 16. A scanning electron microscope (SEM) holder apparatus as
2 recited in claim 15 wherein said plurality of through holes is arranged
3 uniformly spaced apart along a common diameter of about 2 inches.